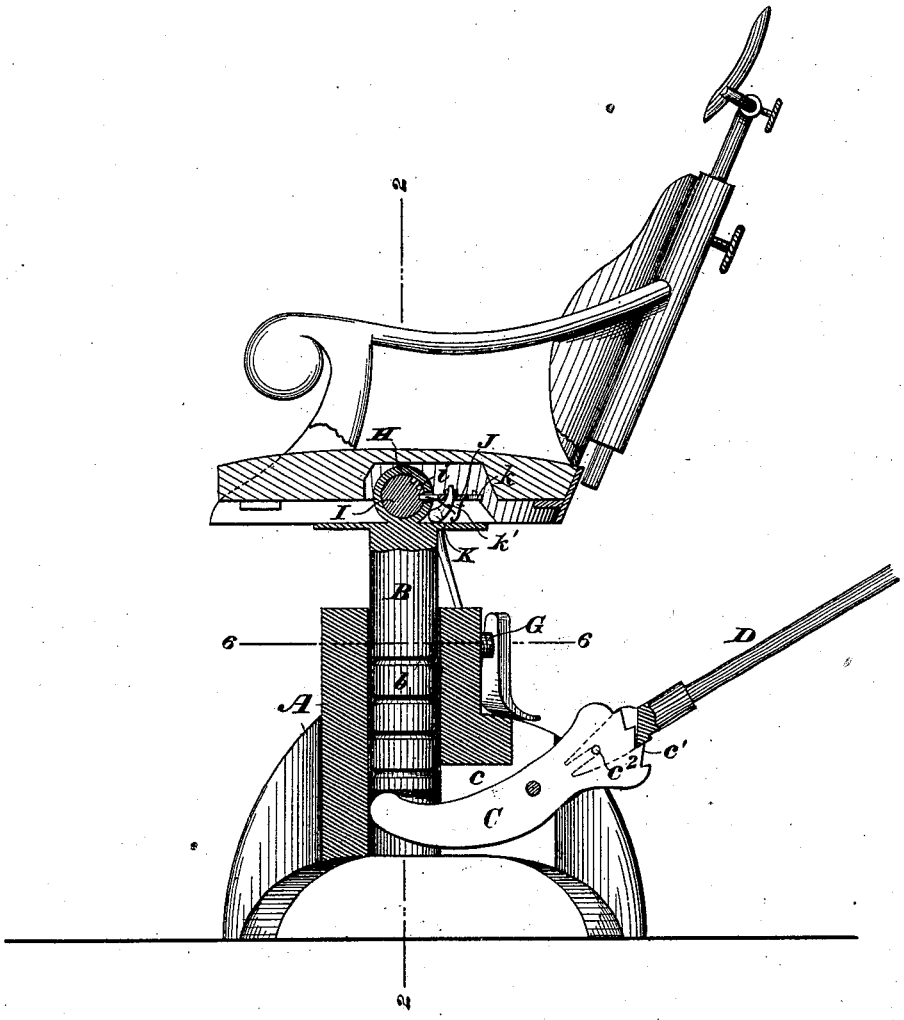
3 Sheets—Sheet 1.

H. C. TRIPP.

Dental-Chair.

No. 208,000. **Patented Sept. 10, 1878.**

Fig 1.



WITNESSES

Wm A Skinkle

Roberdeau Buchanan.

By his Attorneys

Baldwin Hopkins & Peyton

INVENTOR

Henry C Tripp

3 Sheets—Sheet 2.

H. C. TRIPP.
Dental-Chair.

No. 208,000. Patented Sept. 10, 1878.

Fig 2.

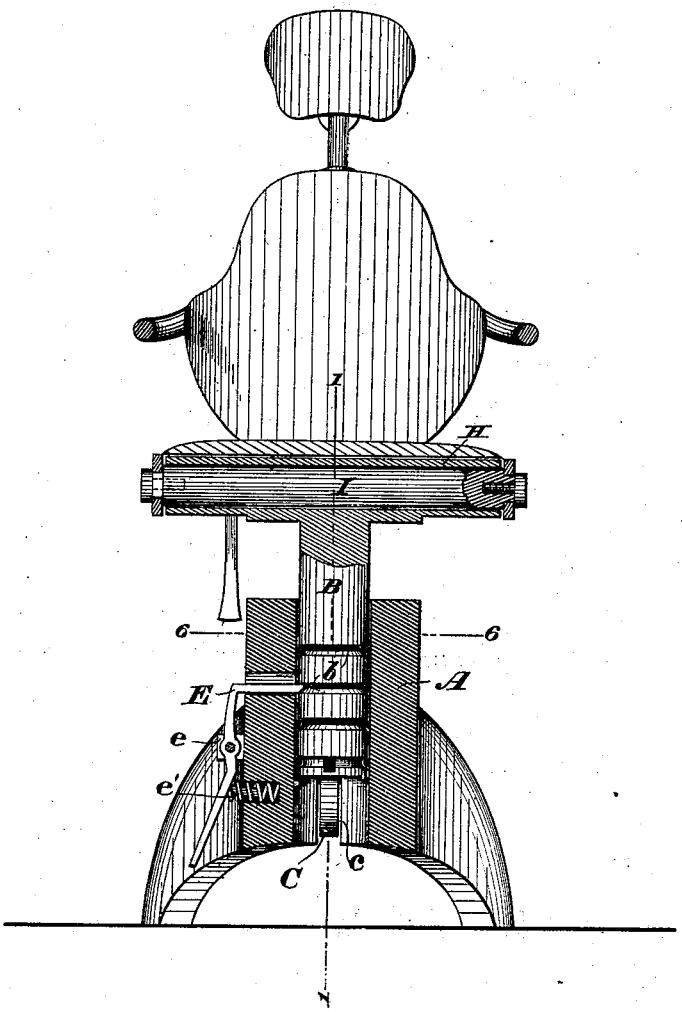


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Fig 3.

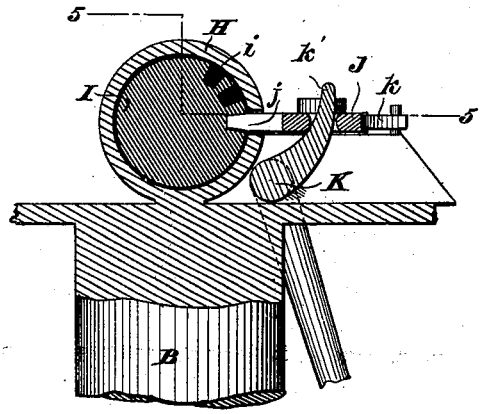


Fig 4.

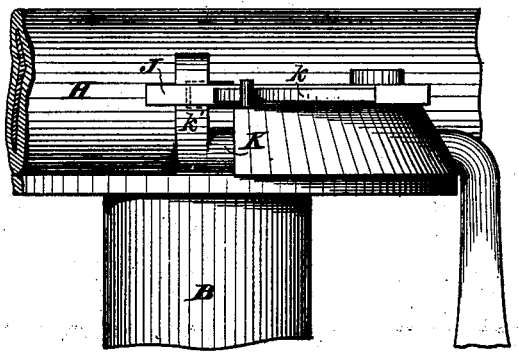


Fig 6

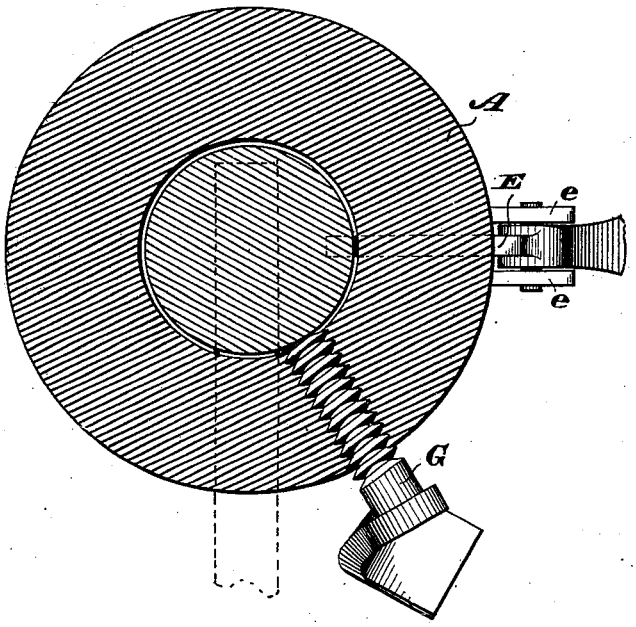
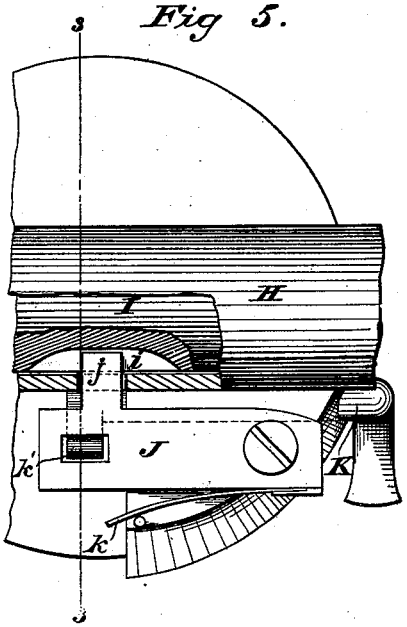


Fig 5.



WITNESSES

Wm A Skinkle

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INVENTOR

Henry C Tripp

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UNITED STATES PATENT OFFICE.

HENRY C. TRIPP, OF AUBURN, NEW YORK, ASSIGNOR TO SAMUEL S. WHITE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN DENTAL CHAIRS.

Specification forming part of Letters Patent No. **208,000**, dated September 10, 1878; application filed June 6, 1878.

To all whom it may concern:

Be it known that I, HENRY C. TRIPP, of Auburn, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Dental Chairs, of which the following is a specification:

My invention relates to dental chairs of that class having a body or seat vertically adjustable with reference to a base or stand, and constitutes an improvement on the chair shown and described in Letters Patent of the United States granted to George W. Tripp, January 5, 1858, as No. 19,052, which patent shows a seat vertically adjustable independently of the base of the chair and body thereof, by means of a lever having its fulcrum or pivot upon the base and its inner end jointed to the lower end of the seat-supporting standard, the outer end of the lever being connected with a long, bent, controlling hand-lever extending upward back of the chair, and whereby the seat and occupant could be elevated or lowered with but little exertion on the part of the operator without stooping, and be held at any desired height by a spring-detent on the base engaging one of a series of teeth formed on the vertically-moving seat-supporting standard.

The object of my invention is so to organize a dental chair embodying the feature of a pivoted lever acting on a vertically-moving column, plunger, or support that the entire body of the chair may be elevated or lowered with reference to the base, and be freely revolved, turned, or adjusted horizontally, and locked in any position desired.

To these ends my invention consists in combining, in a dental chair, a base, an endwise-moving, turning column, plunger, or support mounted in the base, a chair-body mounted on the column, a lever, pivoted or having its fulcrum in the base, acting on the column to adjust it vertically, and a detent, also mounted on the base, automatically engaging with the column to lock it in its elevated position in whatever position the chair may be.

In the accompanying drawings, Figure 1 is a vertical central section on the line 1 1 of Fig. 2 through a dental chair embodying my improvements; Fig. 2, a similar section therethrough at right angles to the plane of section in Fig. 1 and on the line 2 2 of said figure; Fig. 3, a sectional view, on an enlarged scale, on the line 3 3 of Fig. 5 of the seat-supporting, rocking, and locking devices for varying the inclination of the chair; Fig. 4, a rear elevation thereof; Fig. 5, a plan or top view thereof; and Fig. 6, a transverse section on the line 6 6 of Figs. 1 and 2 through the base and plunger, showing the locking-screw working in the base to secure the plunger against endwise or turning movements.

The base or stand A is of the usual construction, and the chair or seat-supporting column or plunger B is fitted accurately therein, so as to be capable of moving freely endwise, as well as of turning independently thereof.

A lifting-lever, C, is pivoted on or in a suitable opening in the base—as at *c*, for instance—and has its inner end adapted to engage or bear against the lower end of the plunger, in this instance during the operation of raising or lowering the chair body or seat.

The outer end of the lever C in this instance is serrated or provided with teeth c^1 and a pin, c^2, for the reception of the forked slotted end of a long hand-lever, D, in a manner somewhat similar to that shown in the Letters Patent hereinbefore mentioned. By working the lever D, and consequently rocking the elevating-lever C upon its fulcrum, the plunger B may be elevated to any desired or necessary extent with little power and without necessitating the stooping of the operator. I contemplate in some instances, however, to so organize the elevating-lever C as to work it by means of the foot.

In order to sustain the chair or seat-supporting plunger in any elevation to which it may be adjusted, no matter what horizontal position the chair may be in or the plunger turned, I form on said plunger or column a series of circular grooves, depressions, notches, or teeth, *b*, and mount on the base or stand a detent to automatically engage the said grooves, or whichever one that comes opposite it, this detent consisting, in the present instance, of a lug-nosed or hooked-end latch, E, pivoted between suitable lugs *e* on the base, with its hooked end working therethrough, a spring, *e'*, acting on the latch serv-

ing to keep it normally in engagement with a groove in the plunger. The lower end of the latch is suitably formed to be operated by the foot, to avoid the necessity of stooping to disengage the latch or detent when the chair is to be lowered.

A screw, G, working through the base, and adapted to abut or bear against the plunger to lock it and the base together, when desired or necessary, is also, for convenience, constructed to be operated by the foot.

To enable the chair body or seat to be rocked, tilted, or variably inclined relatively to the base and supporting-plunger, I mount upon or form with the upper end of the plunger a tubular cross-bar or bearing, H—or suitable lugs would answer—through which passes a shaft, axle, or pivot, I, connected with the side frames of the chair or to the seat, the shaft being capable of rolling or turning freely in its bearings. The chair is locked in its inclined position by means of a detent, consisting, in this instance, of a pivoted plate, J, having a lug, nose, or tongue, *j*, working through an opening in the tubular cross-bar or bearing H, and engaging with one of a series of notches, projections, or teeth, *i*, formed on the shaft or pivot I. A spring, *k*, acts on the plate J, and tends to keep its locking portion normally in engagement with the notches and the chair locked in its inclined position. A rock-shaft, K, mounted on the plunger, has one of its ends terminating in a projection or finger, *k'*, working in a slot in the plate J, Figs. 3 and 5, its other end terminating in a flattened downwardly-projecting portion, for convenience of operation by the foot. By rocking this lever the detent may be disengaged and the inclination of the chair-body varied, the detent, immediately upon the removal of the foot, being again thrown into engagement by its spring.

The chair body and seat may, of course, be of any suitable approved or preferred construction, and the head-rest of any usual or desired form.

I claim as my invention—

The combination, substantially as hereinbefore set forth, of the base, the endwise-moving, turning column or plunger mounted in the base, the chair-body mounted on the plunger, the lever pivoted on the base acting on the plunger to adjust it vertically, and the detent automatically engaging with the column to lock it in its elevated position, whatever may be the horizontal position of the chair.

In testimony whereof I have hereunto subscribed my name.

HENRY C. TRIPP.

Witnesses:
HORACE T. COOK,
GEO. N. LOUNSBERRY.